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Taxonomic and distributional notes on the African Chaeturini

by R. K. Brooke

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White (1965) following Lack (1956) placed all the African Spine-tailed swifts in *Chaetura* Stephens 1826. This is a purely new world genus as I have recently shown (Brooke 1970) and the African spine-tails, being relicts of a pre-pleistocene fauna, should be divided among several genera: *Neafrapus* Mathews 1918, *Rhaphidura* Oates 1883, *Telacanthura* Mathews 1918 and *Zoonavena* Mathews 1918. While holding a Frank M. Chapman memorial grant from the American Museum of Natural History in New York I examined many spinetails in the museums listed in Brooke (1969a) to whose authorities I am much obliged for facilities for study. I am also obliged to Dr. A. A. da Rosa Pinto for facilities for study at the Instituto de Investigacao Cientificia de Angola at Sa da Bandeira; to C. W. Benson for data on *Rhaphidura sabini* in the British Museum (Natural History) in London; to P. A. Clancey for the loan of material in the Durban Museum; to A. D. Forbes-Watson for the loan of some of his Mt. Nimba specimens. English names are discussed in Brooke (in press). Nothing is said of *Telacanthura* since my friend, the late Dr. A. De Roo, may have completed his comments on *T. ussberi* (Sharpe) for posthumous publication.

Age and sex dimorphism hardly exists in the Chaeturini. The only way to tell a juvenile specimen is when it is in sufficiently fresh plumage for the pale tips of the three outermost primaries not to have abraded (Brooke 1969b). There is no present evidence that juveniles are mensurally smaller than adults. Sight records have been used where they markedly fill out the range known from specimens bearing in mind that the old world Chaeturini are among the more readily identifiable swifts in the field.

Zoonavena grandidieri grandidieri (Verreaux)

The Brown Spinetail of Madagascar is the only spinetail with a forked tail. The depth (distance between the ends of the webs of the innermost and outermost rectrices with the tail held closed) is 1.5-5.0 av. (22) 3.23 mm. The two outermost rectrices are of equal length unlike the normal situation

in fork-tailed Apodini. I have not seen material of *Z. g. mariae* (Benson) so do not know if it also has a forked tail. No weights are known for this species.

[A male and two females of *Z. g. mariae* in the British Museum (Natural History) all have a fork depth of 3 mm.—Ed.]

Rhaphidura sabini (Gray)

Sabine's Spinetail is probably continuously distributed throughout the forest country of west Africa in view of the Ghanaian sight records given by Bannerman (1951) and Sutton (1965).

The figures for wing lengths are broken down into eastern (Congo Kinshasa and Uganda) and western (Sierra Leone to Gaboon) birds as well as by sex:—

A. Congo Kinshasa and Uganda ♂♂ 113–124 av. (22) 118.4, ♀♀ 116–126 av. (18) 120.5 mm.

B. Sierra Leone to Gaboon ♂♂ 118–125 av. (19) 122.2, ♀♀ 116–126 av. (15) 121.5 mm.

It appears that eastern males are smaller than their western counterparts but that there is no similar variation in females. Analogous variation in the males only also occurs in *Neafrapus boehmi* below. The Fernando Po birds were not included in the above figures: they range from 116–129 av. (9) 121.6 mm: the largest bird is a female. The overall range and average is 113–132 av. (86) 119.2 mm.

R. s. ogowensis (Neumann) 1908: Ogowe River in Gaboon was proposed on the grounds that it was smaller than the type of *R. sabini* from Sierra Leone. Bannerman (1933) pointed out that the other Sierra Leone birds were the same size as *ogowensis* but gave no figures. C. W. Benson (in litt.) advises that the type in the B.M.N.H. has a wing of 132 mm but that other material from Sierra Leone measures 122 and 126 mm. In view of the figures given above under B, nearly all of which are from Gaboon, *ogowensis* is clearly untenable on size; no colour differences have ever been suggested and I found none. The species should be treated binomially, an opinion recently expressed by Friedmann & Williams (1970).

Some birds from Kakamega have been weighed: ♂♂ 4 at 16 g each ♀♀ 15–17 av. (5) 16 g. Britton (1970) gives an unsexed weight of 16 g. Average (10) 16 g. Two females from the opposite end of the range at Mt. Nimba weigh 19.7 and 19.5 g. It may be that western populations are heavier than eastern just as their males are longer winged.

A. D. Forbes-Watson kindly lent me two of his Mt. Nimba specimens for examination. The female taken on 26th March is normal but the female taken on 18th July is unlike any other specimen of *R. sabini* that I have examined: it is not a juvenile. The gloss on the dark parts above and below has largely disappeared leaving the throat and breast blackish brown and the upper parts blackish blue. The upper and under tail coverts do not extend far enough to cover the webs of the rectrices as they do in normal birds. The white feathers of the caudal end have dark shafts as usual but also narrow dark webs along the shafts: these are most marked on the upper tail coverts. The overall effect is a much duller bird than usual. Despite the dark webs along the shafts of the white feathers which is a character of *Zoonavena*, it lacks the dark tail coverts which are a character of that genus.

Neafrapus boehmi (Schalow)

Brooke (1966) reviewed the Bat-like Spinetail and showed that *N. b. sheppardi* (Roberts) was recognizable in that the grey-brown of the breast

came further down onto the abdomen than in the nominate race, that it was also a little paler in colour below, and had shorter wings than the nominate race on the interior plateaux where the type locality lies. *N. b. sheppardi* occurs along the east coast of Africa from southern Somalia to southern Mozambique and up the low lying river valleys. It intergrades with the nominate race in the Zambezi valley above the Victoria Falls north to Kabompo. The nominate race has a disjunct distribution, a longer winged, heavy form on the plateaux of Tanzania, Zambia and southern Congo Kinshasa and a shorter winged, light form on the coast of Angola below the escarpment. The name *Chaetura anchietae* Sousa 1887: Quissange is available for the Angolan population if it is thought desirable to separate them on the grounds of weight.

Wing lengths and weights range and average:—

N. b. boehmi in Angola ♂♂ 109–128 av. (22) 121.7 mm, 13–16 av. (7) 14.29 g; ♀♀ 120–131 av. (20) 125.6 mm, 13–16 av. (5) 14.60 g; overall 109–131 av. (49) 123.4 mm, 13–16 av. (19) 14.58 g.

N. b. boehmi on the central plateaux ♂♂ 122–135 av. (15) 125.7; ♀♀ 122–131 av. (9) 126.0, overall 122–135 av. (24) 125.8 mm.

The only weights available are of three unsexed birds from Zambia 18.0, 20.5, 22.3 g (Brooke 1966).

N. b. sheppardi ♂♂ 108–126 av. (22) 115.6 mm, 12.0–15.5 av. (5) 13.50 g; ♀♀ 111–124 av. (9) 116.8 mm, 13, 15 g; overall 108–126 av. (33) 116.1, 12.0–15.5 av. (7) 13.64 g.

It is only in the males that Angolan birds are shorter winged than the central plateau birds, a situation similar to that found in *R. sabini* above.

Neafrapus cassini (Sclater)

Like Sabine's Spinetail the Stumpy-tailed Spinetail probably occurs throughout the west African forest belt: *Sierra Leone*: Yambuya (Chapin 1939), *Liberia*: Mt. Nimba (C. W. Benson in litt. on A. D. Forbes-Watson's collection), *Ghana*: sight records from Kade (Sutton 1965), *Nigeria*: sight records from Awgu and Okigwi (Marchant 1942), from Kreagani (Serle 1957).

The range and average wing lengths are ♂♂ 146–165 av. (34) 155.8, ♀♀ 148–164 av. (23) 158.0, overall 146–165 av. (60) 156.7 mm. The sexual dimorphism, if real, is negligible. No weights have been recorded.

In some birds only the throat is mottled and the breast is an even dark shade: these are mostly sexed as males whereas in others, mostly sexed as females, the mottling comes down onto the breast. Unless a considerable number of specimens have been mis-sexed, this character (plain or mottled breast) is not sex-linked, neither is it a function of abrasion.

There is no geographical variation in the material I have examined from the Cameroons to the Congo, and there are no grounds for recognizing *N. c. brevicauda* (Reichenow) 1911: Bipindi in the Cameroons as a subspecies. It may be that a series from Ghana to Guinea will be distinguishable, but this matter will have to wait until a series is collected.

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Notes on the habits and taxonomy of *Rhodospingus cruentus*

by Raymond A. Paynter, Jr.

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Monotypic *Rhodospingus cruentus* is endemic to the arid equatorial region of western Ecuador and of extreme northwestern Peru. Within this restricted area it exhibits seasonal movements, appearing in abundance in the coastal lowlands during the rainy season from January to June, when it breeds, and apparently retreating to slightly higher elevations during the dry season, although not entirely deserting either region at any time (Marchant 1958; 1959).

I observed the species on several occasions, from 11th to 13th October 1965, while 5 km south of Sabiango, Loja, Ecuador, at an altitude of 650 m. It was found either singly or in loose flocks of up to 10 individuals, usually feeding in the foliage of acacias but sometimes in tall grass in company with flocks of *Volatinia jacarina*. Of the seven specimens collected three were males, two females, and two of indeterminate sex. The males were in immature plumage; just one adult male was seen in the three days of observations. The males weighed 11.0, 11.2, and 11.5 g; the females 11.9 and 13.3 g. The only call heard was a soft "zip".

One specimen was preserved in fluid. Its stomach and well-developed crop contained ovate, flattened caryopsis seeds ($2.5 \times 1.0 \times 0.7$ mm) of an unidentified grass (Gramineae). The seeds in the crop had been ingested uncrushed. No grit was present anywhere in the alimentary tract and it is assumed that the fragmentation of the seeds which was noted in the ventriculus had occurred without the aid of abrasive material. Goodfellow (1901: 474) tentatively identified grass seeds in a specimen collected in October, but Marchant (1959; 1960) reported that the bird feeds on insects. Presumably Marchant's observations were made during the rainy season when he was studying reproduction. It is probable that the species, existing as it does in an area of seasonal extremes in rainfall, is capable of utilizing a wide variety of food. Its tongue (Fig. 1), which is slender and pointed, grooved in the centre, rolled on the edges at the apex, and equipped with a bifurcated frayed tip, suggests that the species may also be capable of feeding on nectar and possibly pollen.

The systematic position of *Rhodospingus cruentus* within the hierarchy of the nine-primaried oscines is uncertain. The species was named *Tiaris cruentus* by